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**REVISED ALTERNATIVES TO ACCOMMODATE
REDEFINITION OF OPERABLE UNIT 2**

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LETTER**



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DOE-585-92

Mr. James A. Saric, Remedial Project Director
U. S. Environmental Protection Agency
Region V - 5HR-12
230 South Dearborn Street
Chicago, Illinois 60604

Mr. Graham E. Mitchell, DOE Coordinator
Ohio Environmental Protection Agency
40 South Main Street
Dayton, Ohio 45402-2086

Dear Mr. Saric and Mr. Mitchell:

REVISED ALTERNATIVES TO ACCOMMODATE REDEFINITION OF OPERABLE UNIT 2

As you are aware, the Amended Consent Agreement provides for a redefinition of Operable Unit 2 with respect to groundwater. Consistent with the Amended Consent Agreement, the scope of the Operable Unit 2 Remedial Investigation/Feasibility Study (RI/FS) documents will be limited to addressing only that groundwater encountered as a consequence of implementation of a remedial action. To accommodate this redefinition of the Operable Unit, slight alterations are required to the remedial alternatives which survived the initial screening phase. The following discussion identifies the required revisions to the alternatives for Operable Unit 2. Please note that the "No Action" alternative will continue to be evaluated consistent with pertinent United States Environmental Protection Agency (U.S. EPA) guidance.

Sanitary Landfill

Alternative 2: Containment

Under this alternative, the waste would remain in place. Access restrictions, monitoring activities, capping, and runoff control would be implemented. Groundwater encountered as a consequence of implementation of this alternative would be addressed.

Alternative 2: Containment with Perched Groundwater Treatment

This alternative ceased to exist due to the redefinition of the Operable Unit (OU) in the Consent Agreement.

Alternative 5: Removal and Treatment of Waste, and On-Property Disposal

This alternative combines access restrictions, monitoring, and runoff control with mechanical removal, treatment and on-property disposal of waste

materials. Removal and treatment of perched groundwater would become a part of this alternative when perched groundwater is encountered during implementation. Subsurface flow control measures (i.e. slurry cutoff wall and dewatering) may be required should this occur. The technologies that would be examined for waste treatment are rotary kiln incineration and cement-based stabilization of treatment residuals.

Alternative 6: Removal and Treatment of waste and Off-Site Disposal

This alternative is identical to Alternative 5, except that the waste would be disposed of at an off-site location after its removal and treatment.

Lime Sludge Ponds

Alternative 1: Containment with In-Situ Stabilization

Under this alternative the waste would remain and be stabilized in place, using Shallow-Soil-Mixing (SSM) technology. This involves the use of a device suspended from a crane to inject and mix the lime sludges with a mixture of cement and fly ash to produce a stabilized end product that could support the weight of a cap. Access restrictions, monitoring activities, capping, and runoff control also would be implemented. Groundwater encountered as a consequence of implementation of this alternative would be addressed.

Alternative 2: Containment with In-Situ Stabilization and Perched Groundwater Treatment

This alternative cease to exist as part of the redefined OU 2.

Alternative 3: Removal and Treatment of Waste and On-Property Disposal

This alternative combines access restrictions, monitoring, and runoff control with mechanical removal, treatment, and on-property disposal of waste materials. Removal and treatment of perched groundwater would become a part of this alternative when perched groundwater is encountered during implementation. Subsurface flow control measures (i.e. slurry cutoff wall and dewatering) may be required should this occur. The technology that would be examined for waste treatment is solidification using a cement/fly ash mixture and applying a process similar to that used in producing concrete in a batch plant.

Alternative 4: Removal and Treatment of Waste, and Off-Site Disposal

This alternative is identical to Alternative 3, except that the waste would be disposed of at an off-site location after removal and treatment.

Fly Ash/Southfield Area

The FlyAsh/Southfield area comprised three distinct areas: the Active Fly Ash Pile, the Inactive Fly Ash Disposal Area, and the Southfield. The Inactive Fly Ash Disposal Area is adjacent to the Southfield. The Active Fly Ash Pile is separated from the Southfield by an unpaved road.

Alternative 1: Containment

Under this alternative the waste would remain in place. Access restrictions, monitoring activities, capping, and runoff control would be implemented. Groundwater encountered during implementation would be addressed as part of this alternative.

Alternative 2: Containment with Perched Groundwater Treatment

This alternative ceases to exist under the redefined OU 2.

Alternative 5: Removal and Treatment of waste, and On-Property Disposal

This alternative combines access restrictions, monitoring, and runoff control with mechanical removal, treatment, and on-property disposal of waste materials. Removal and treatment of perched groundwater would become a part of this alternative when perched groundwater is encountered during implementation. Subsurface flow control measures (i.e., slurry cutoff wall and dewatering) may be required should this occur. The technology that would be examined for waste treatment is solidification, using a mixture of cement and fly ash and applying a process similar to that used for production of concrete in a batch plant.

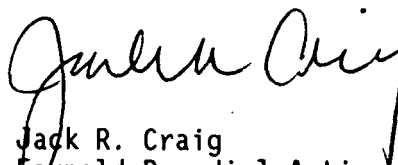
Alternative 6: Removal and Treatment of Waste, and Off-Site Disposal

This alternative is identical to Alternative 5, except that the waste would be disposed off at an off-site location after removal and treatment.

The Department of Energy (DOE) is proceeding with implementation of these revisions for the Operable Unit 2 Feasibility Study.

If you have any questions, please contact me at (513) 738-6159.

Sincerely,


Jack R. Craig
Fernald Remedial Action
Project Manager

cc:

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